

B1
Cont.
being formed of a precious metal and a second constituent Y
being consumed during a soldering operation by one of reacting
and being dissolved in materials which are to be joined, and
said solder having a hypereutectic concentration of said
second constituent Y;

a substrate; and

a semiconductor chip secured to said substrate by one of
alloying and brazing using said solder,

said solder containing a gold-tin compound (AuSn) having a
composition by weight of Au to Sn of 70 to 30 and forming a
layer having a thickness of from about 1 μm to about 2 μm .